House Ways & Means Committee

STATE OF THE STATE'S INFRASTRUCTURE BRIDGE & ROADWAY NEEDS February 1, 2017

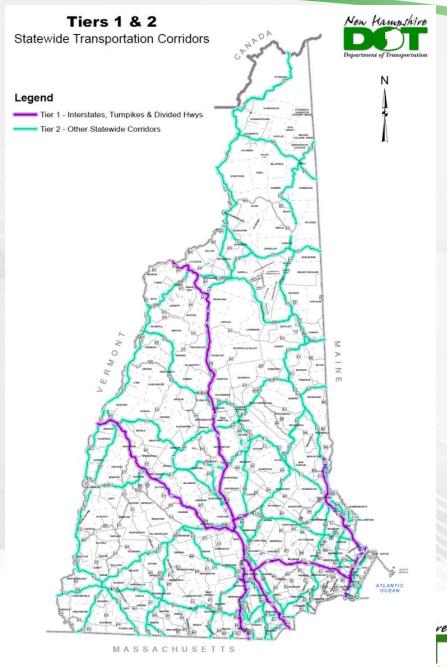
Presented By:

Christopher Waszczuk, Deputy Commissioner



Current State of Infrastructure (Tiers)

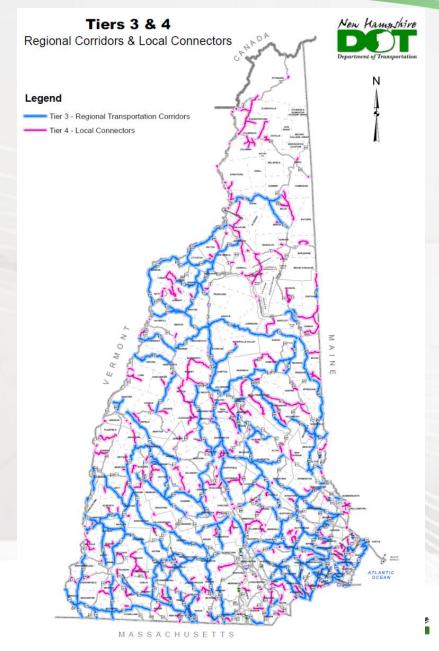
- Tiers 1 & 2 (Statewide Transportation Corridors)
 - Tier 1 Interstates,
 Turnpikes & Divided Hwys
 - Tier 2 Major Statewide
 Corridors (US 4, US 3, NH 10, NH 25)
 - These are typically higher volume, higher speed facilities. Important for commuters, tourism, and freight movement of goods



Current State of Infrastructure (Tiers)

Tiers 3 & 4 (Regional Corridors & Local Connectors)

- Tier 3 Regional Corridors (Rte 4A, Rte 135, Rte 112, Rte 108).
 Moderate speeds, moderate traffic volumes, provide connectivity within regions
- Tier 4 Secondary Highways & Unnumbered state roads (Route 103A in Sunapee or Stinson Lake Rd in Rumney). Usually low speed, low traffic volumes, provide local connections within or between communities



Current State of Infrastructure (Tiers)

Department is responsible for and maintains nearly 4600 miles¹ of Tier 1 – 4 state highways.

Tier 1-4 Federal Aid Eligible Highways (3,452 Miles)

Tier 1-4 Non-Federal Aid Eligible Highways (1,144 Miles)

Fed Aid Eligibility	Tier				
	1	2	3	4	5
Fed Aid Eligible Miles	840	1422	1062	128	692
Non Fed Aid Eligible Miles	0	2	377	765	11,309
Total Miles	840	1,424	1,439	893	12,001
Fed Aid Eligible Percentage	100%	100%	74%	14%	6%
Non-Fed Aid Eligible Percentage	0%	0%	26%	86%	94%

- Notes: 1. Based on Barrel miles in 2017 Snapshot
 - Includes miles owned by Turnpikes (271 miles)
 - Includes Ramps
 - Federal Aid Eligible miles include FHWA Functional System 1-5 and 6 in Urban Areas
 - Tier 5 Roads not shown (include Class 4 and Class 5 roads).

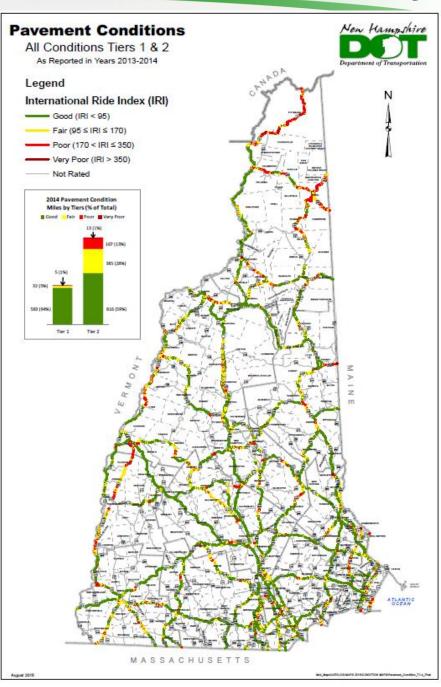


Tier I

- 99 % of pavement in good or fair condition
- 1% (5.4 miles) of pavement in poor or very poor condition

Tier 2

- 87 % of pavement in good or fair condition
- 13% (180 miles) of pavement in poor or very poor condition

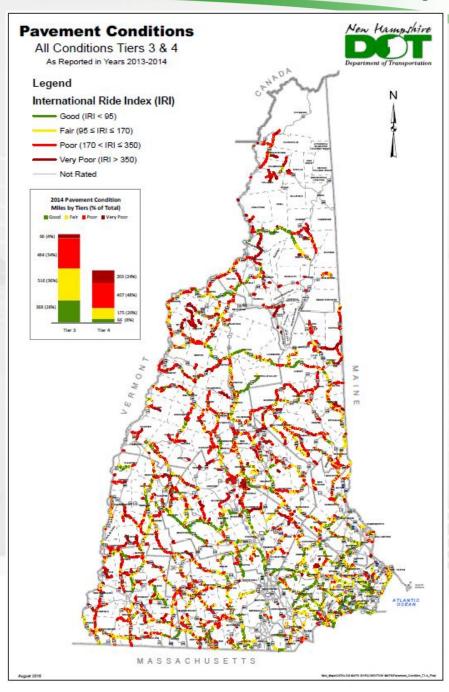


Tier 3

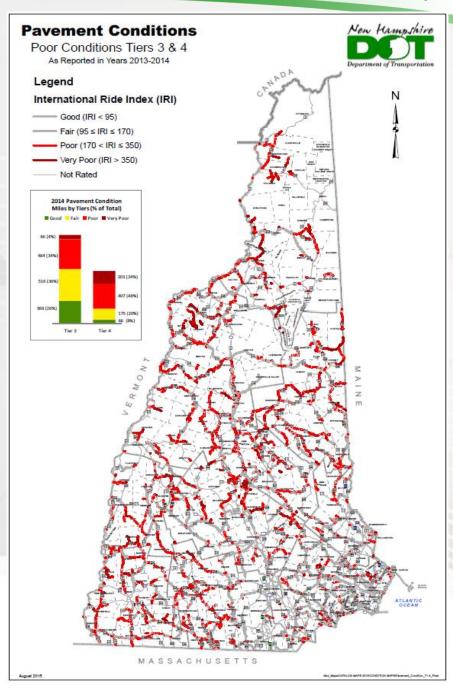
- 62% of pavement in good or fair condition
- 38% (550 miles) of pavement in poor or very poor condition

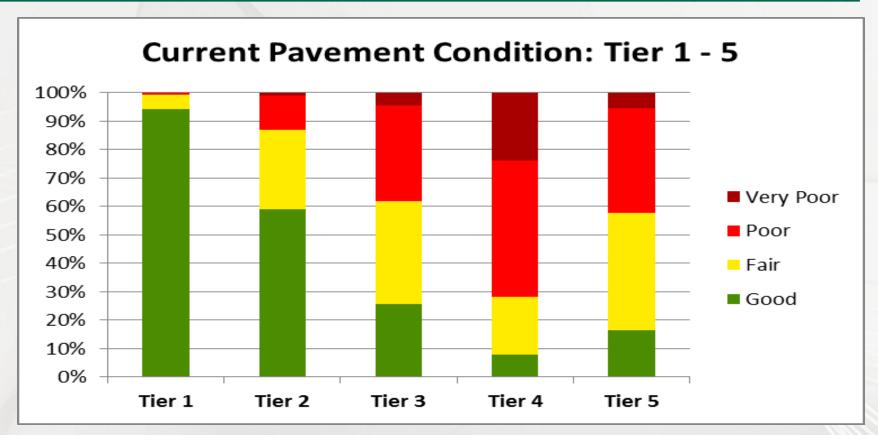
Tier 4

- 29% of pavement in good or fair condition
- 71% (610 miles) of pavement in poor or very poor condition



- Tier 3
 - 550 miles of pavement in poor or very poor condition
- Tier 4
 - 610 miles of pavement in poor or very poor condition





- Tiers 1 & 2 91% of roads are in good or fair condition
- Tiers 3 & 4 49% of roads are in good or fair condition
- Overall, 68% of NH's roads (state & municipal) are good/fair
 Conversely, 32% (1,345 miles) are poor/very poor condition







Tier 3: NH 129 (Loudon)



Tier 3: NH 12A (Alstead)



Tier 4: Rhododendron Road (Fitzwilliam)

Tier 4: Village Road (Surry)

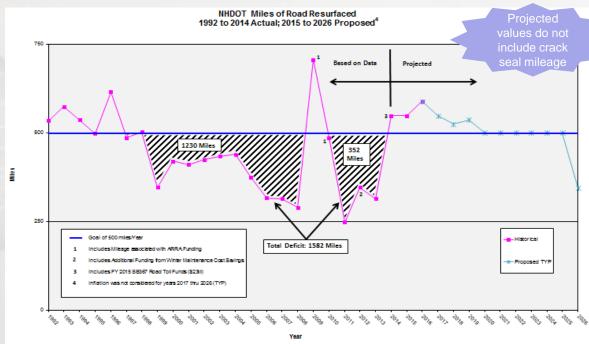
Above photos depict representative conditions on poor and very poor Tier 3 & 4 roads

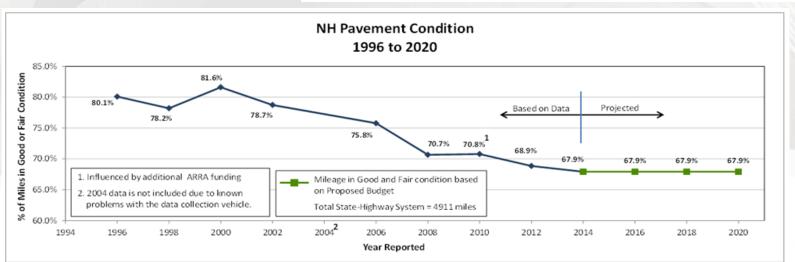


A Look Ahead – Road Condition

Based on current level of investment in approved TYP

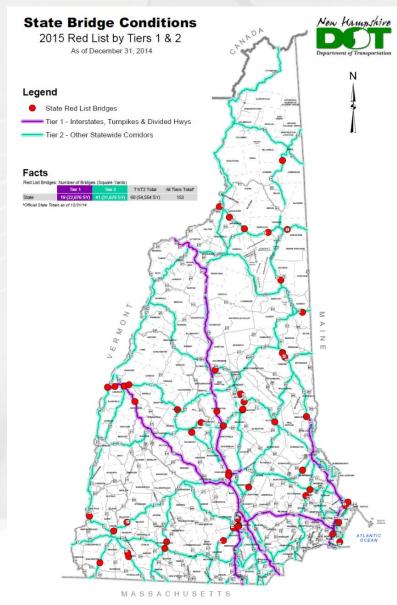
- Overall Pavement condition is expected to remain unchanged
- Past years backlog of deficit paving has reduced the state's overall pavement condition from a high of 81.6% of roads in good or fair condition to a current and projected level of 67.9%

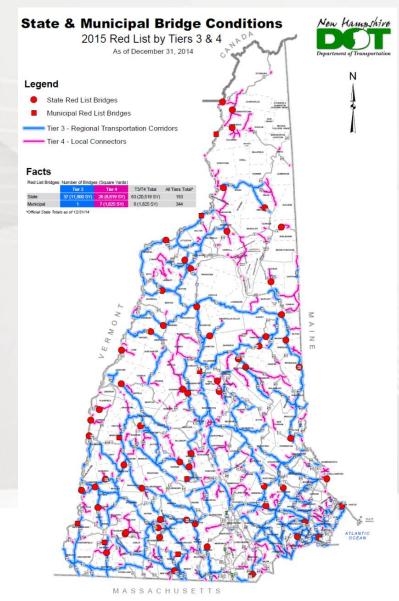






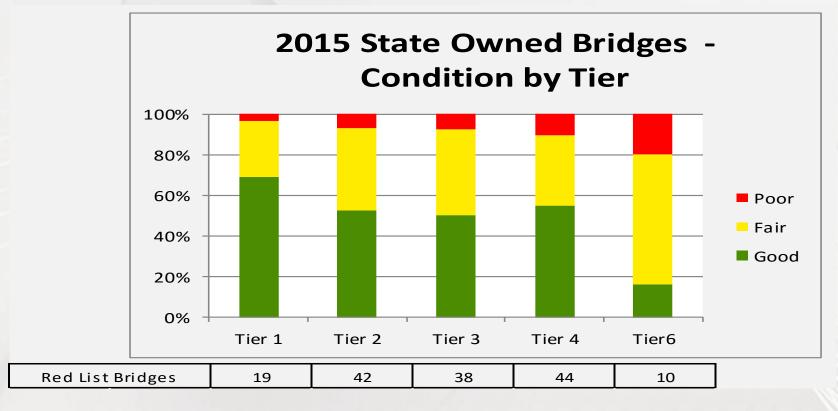
Current State of Infrastructure (Bridges)







Current State of Infrastructure (con't)



- Presently (2015) 2159 State Bridge, 153 State Red-List Bridges
- Tiers 1 & 2 5.3% (61 bridges) in poor condition (red list)
- Tiers 3 & 4 8.7% (82 bridges) in poor condition (red list)
- Additionally 344 Municipal Red-List Bridges (2015)



New Hampshire

Current State of Infrastructure (Bridges)



Above photos depict a bridge in Lancaster on Tier 2 Roadway – listed as Priority #4 on State's Red-List Bridges

- US 2 over Connecticut River
- First placed on Red List in 2013
- In TYP for replacement in 2019 (SB367 TIFIA Pledged Revenue)

Current State of Infrastructure (Bridges)

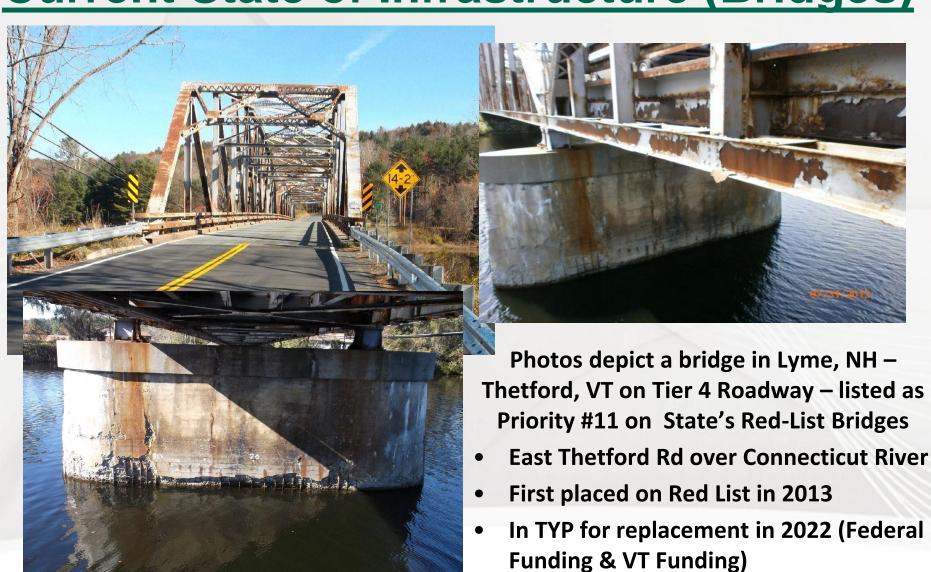


Above photos depict a bridge in Ossipee on Tier 2 Roadway - listed as **Priority #8 on State's Red-List Bridges**

- First placed on Red List in 2004
- In TYP for replacement in 2018 (SB367 TIFIA Pledged Revenue) New Hampshire

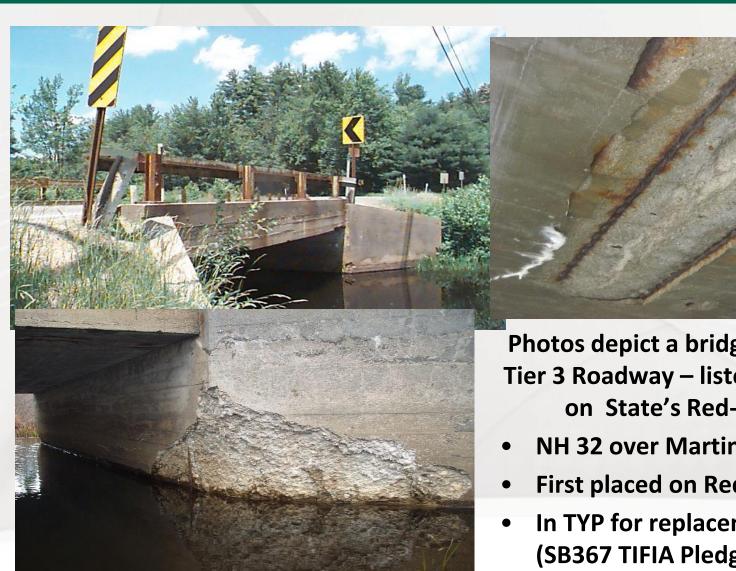
New Hampshire

Current State of Infrastructure (Bridges)



New Hampshire

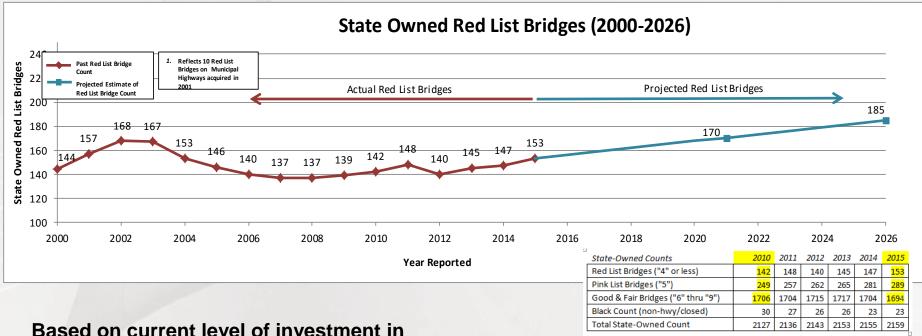
Current State of Infrastructure (Bridges)



Photos depict a bridge in Swanzey on Tier 3 Roadway – listed as Priority #33 on State's Red-List Bridges

- **NH 32 over Martin Brook**
- First placed on Red List in 2000
- In TYP for replacement in 2023 (SB367 TIFIA Pledged Revenue)

A Look Ahead – State Bridge Condition



Based on current level of investment in approved TYP

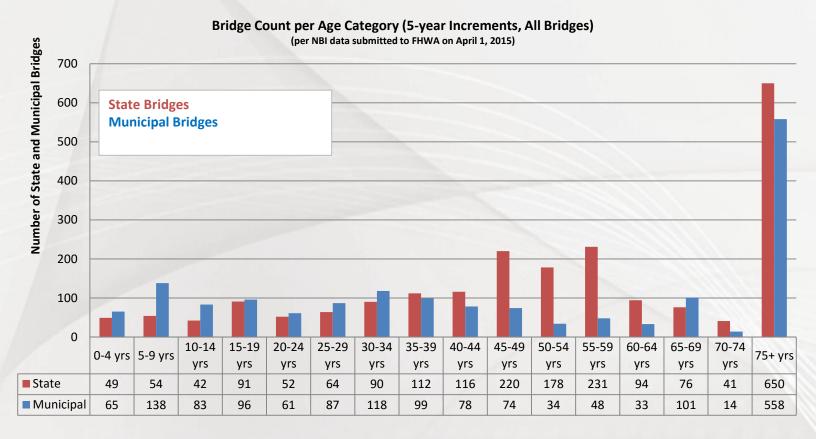
- Number of State Red List Bridges (SRL)

 which is representative of bridges in poor condition (rating of 4 or lower) is expected to increase
- Higher number of "pink list" bridges (rating of 5) today than 5 years ago
- 2015 SRL bridge total 153

- Bridges added to SRL by 2026 276
 - 23 Bridges added annually over 5year period (2011-2015) – extrapolated to 2026 projects to 276 bridges
- Bridges expected to be removed from SRL by 2026 - 244
 - 132 removed by Bridge Maintenance forces
 - 112 removed under TYP



State & Municipal Bridge Age



- Of the 3,846 State & Municipal Bridges, 1,208 are 75 years or older
 - 2,159 State Bridges 650 are 75 years or older
 - 1,687 Municipal Bridges 558 are 75 years or older
- Major Looming Liability if we do not invest in bridge maintenance and preservation efforts.



Unfunded Needs – Bridges & Roads

Red List Bridge Backlog

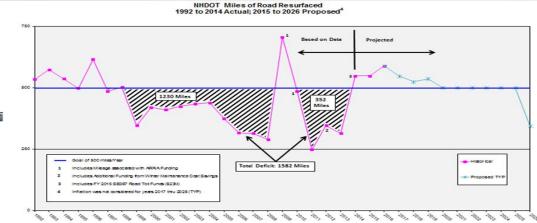
- 2015 153 state red list bridges
 2017 151 state red list bridges
- Based on Proposed Investment Level in TYP— Estimated to address 190 Bridges
- However, 650 State-Owned Bridges are 75+ years old
- 2015 289 "Pink List" Bridges (rated 5 & majority to come on Red List soon)
- Number of Red List Bridges is projected to grow to 185 in 2026

Paving Backlog

 Paving Deficit of 1582 miles (1999-2013) – Represents the number of miles below the 500 miles threshold

Over last 3 years (2014-2016) paved 1723 miles – Able to Address the backlog

slightly





Unfunded Needs (con't)

Bridge Investment

- Additional investment of \$12M/year needed over 10-year period for Tier 1 & 2 bridge preservation needs (to keep bridges off red-list)
- Additional investment of \$21M/year needed to address additional 8 red list bridges per year (bridges that are anticipated to be added to red list but not addressed during the TYP period – effectively reduce the redlist by 80 bridges over ten-year period)

Pavement Investment

- Additional investment of \$11.5M/year needed over 10-year period to rehabilitate poor and very poor Tier 2, 3 & 4 roads
- Additional investment of \$3M/year needed over 10-year period, for the maintenance pave program, to achieve & maintain pavement condition of poor and very poor roads in fair condition
- Total Additional Investment of \$47.5M per year for State Roads & Bridges





